



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,974	01/29/2004	Brian T. Denton	BUR920040009US1	1973

29154 7590 03/04/2010
FREDERICK W. GIBB, III
Gibb Intellectual Property Law Firm, LLC
844 West Street
SUITE 100
ANNAPOLIS, MD 21401

EXAMINER

KARDOS, NEIL R

ART UNIT	PAPER NUMBER
----------	--------------

3623

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

03/04/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

support@gibbiplaw.com

Office Action Summary	Application No. 10/707,974	Applicant(s) DENTON ET AL.	
	Examiner Neil R. Kardos	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-21 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-21 and 23-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/12/09, 11/24/09, 1/13/10</u> | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3623

DETAILED ACTION

This is a **FINAL** Office Action on the merits in response to communications filed on October 15, 2009. Currently, claims 1-8, 10-21, and 23-27 are pending and have been examined.

Response to Amendment

Applicant's amendments and explanations are sufficient to overcome the § 112 rejections set forth in the previous office action. Examiner has applied art in view of these amendments and explanations.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The new grounds of rejection is necessitated by Applicant's amendments to the claims and clarification of the claimed subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-21, and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crampton (US 2004/0030428).

Art Unit: 3623

Claim 1: Crampton discloses a computer-implemented method for determining a production plan, said method comprising:

- receiving, by a computer, a file comprising purchase order receipts, said purchase order receipts being defined as line items on purchase orders (see paragraph 92, disclosing scheduled receipts);
- performing, by said computer, a first rescheduling process comprising rescheduling when said purchase order receipts are to be received by a plant so as to indicate that said purchase order receipts will be received by said plant during earlier time periods than initially specified (see paragraph 81 and figure 4C, disclosing that scheduled receipts are moved to the beginning of a planning period; see also paragraph 117);
- after said performing of said first rescheduling process, solving core production planning system equations using rescheduled purchase order receipts associated with said earlier time periods from said first rescheduling process so as to determine an initial production plan (see paragraph 96, disclosing applying algorithms to determine an optimal production plan after the inputs, including the scheduled receipts, have been initially processed);
- after said solving, performing, by said computer, post-processing, said post-processing comprising performing a second rescheduling process comprising rescheduling when said rescheduled purchase order receipts from said first rescheduling process are to be received by said plant so as to indicate that said rescheduled purchase order receipts will be received by said plant during later

Art Unit: 3623

time periods than specified during said first rescheduling process without causing inventory balances to be depleted to zero; and generating and outputting, by said computer, a final production plan based on said initial production plan and said second rescheduling process (see paragraphs 217-219, disclosing post processing to ensure optimal use of resources; if a purchase is greater than the maximum order size, it can be split and excess purchases will be carried over to the next purchase so as to minimize inventory).

Although the final post-processing limitation is not explicitly clear in Crampton, it is at least suggested. Crampton teaches adjusting scheduled receipts in a post-processing step (see paragraphs 217-219). Crampton also teaches minimizing inventory by employing a just-in-time manufacturing philosophy (see paragraphs 59 and 78; paragraph 76, disclosing scheduling receipts in later times in the horizon; paragraph 92, disclosing start and end times to scheduled receipts, and that they can be scheduled before, during, or after a horizon). Crampton also discloses assessing a penalty when scheduled receipts are received too early (see paragraph 116, disclosing that a penalty score will be applied depending on how early a resource is purchased before it is needed; see also paragraph 139, disclosing minimizing early jobs). Given all of these teachings by Crampton, it would have been obvious to one of ordinary skill in the art at the time the invention was made to move scheduled receipts to later time periods in Crampton's post-processing step. One of ordinary skill in the art would have been motivated to do so for the benefit of the efficiencies taught by Crampton (e.g. just-in-time principles, minimizing early jobs, etc.).

Art Unit: 3623

Claim 2: Crampton discloses wherein said first rescheduling process is based upon a field that indicates whether a receipt may be rescheduled to an earlier point in time (see paragraph 92, disclosing that scheduled receipts can have start and end times; paragraphs 70-71, disclosing material horizons; paragraph 109, disclosing hard, soft, and no constraints)

Claim 3: Crampton discloses wherein said first rescheduling process is based upon frozen zone rules (see paragraph 64, disclosing freezing orders).

Claim 4: Crampton discloses wherein said second rescheduling process is based upon one of a date of need (see paragraph 66), frozen zone rules (see paragraph 64), and date tolerances (see paragraph 92).

Claim 5: Crampton discloses after said solving, sorting of said rescheduled purchase order receipts from said first rescheduling process (see paragraphs 66 and 97-104 disclosing sorting).

Claim 6: Crampton discloses wherein said sorting is based upon one of arrival dates, purchase order receipt quantity, and the flexibility of purchase order receipt movement with respect to frozen zone rules (see paragraphs 66 and 97-104 disclosing sorting, disclosing sorting by date, replenishment quantity, and inventory available date).

Art Unit: 3623

Claim 7: Crampton discloses recomputing ending inventory levels to reflect said rescheduling process (see paragraph 104, disclosing inventory levels).

Claim 8: Claim 8 is substantially similar to previously rejected claims (1, 2, 5, and 6) and is rejected under similar rationale. Claim 8 also includes flags that limit when purchase order receipts can be rescheduled. Crampton discloses this limitation (see paragraph 72, disclosing flags; see also paragraph 92, disclosing that scheduled receipts can have start and end times; paragraphs 70-71, disclosing material horizons; paragraph 109, disclosing hard, soft, and no constraints)

Claim 10: Claim 10 is substantially similar to claims 5 and 6 and is rejected under similar rationale.

Claim 11: Claim 11 is substantially similar to claim 1 and is rejected under similar rationale.

Claim 12: Crampton discloses wherein if a time period for receiving by said plant of a purchase order receipt can be extended beyond the latest date of the planning horizon of said linear programming production planning system, said purchase order receipt is eliminated (see paragraphs 70-72, disclosing horizons).

Art Unit: 3623

Claim 13: Claim 13 is substantially similar to claim 7 and is rejected under similar rationale.

Claim 14: Crampton discloses wherein said second rescheduling process limits rescheduling to comply with contractual obligations and to avoid trivial rescheduling (see paragraph 64, disclosing freezing particular orders).

Claim 15: Claim 15 is substantially similar to claim 8 and is rejected under similar rationale.

Claim 16: Claim 16 is substantially similar to claim 8 and is rejected under similar rationale.

Claim 17: Claim 17 is substantially similar to claim 10 and is rejected under similar rationale.

Claim 18: Claim 18 is substantially similar to claim 11 and is rejected under similar rationale.

Claim 19: Claim 19 is substantially similar to claim 12 and is rejected under similar rationale.

Art Unit: 3623

Claim 20: Claim 20 is substantially similar to claim 13 and is rejected under similar rationale.

Claim 21: Claim 21 is substantially similar to claim 8 and is rejected under similar rationale.

Claim 23: Claim 23 is substantially similar to claim 10 and is rejected under similar rationale.

Claim 24: Claim 24 is substantially similar to claim 11 and is rejected under similar rationale.

Claim 25: Claim 25 is substantially similar to claim 12 and is rejected under similar rationale.

Claim 26: Claim 26 is substantially similar to claim 13 and is rejected under similar rationale.

Claim 27: Claim 27 is substantially similar to claim 14 and is rejected under similar rationale.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Rush (US 6,119,102) directed to an MRP system.
- Khalid Sheikh, *Manufacturing Resource Planning (MRP II): With an Introduction to ERP, SCM, and CRM* 130-133 (McGraw-Hill 2003), disclosing rescheduling scheduled receipts both forward and backward.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. Kardos whose telephone number is (571) 270-3443. The examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

Art Unit: 3623

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neil R. Kardos
Examiner
Art Unit 3623

/Neil R. Kardos/
Examiner, Art Unit 3623

/Jonathan G. Sterrett/
Primary Examiner, Art Unit 3623